



10578659 - GAL. 2129 *T. Clise*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Euan Christopher Smith et al.

Title: DIGITAL SIGNAL PROCESSING METHODS AND APPARATUS

Docket No.: 1365.105US1

Serial No.: 10/578,659 ✓

Filed: May 9, 2006

Examiner: Unknown

Group Art Unit: Unknown

Mail Stop Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

X Return postcard.

X Information Disclosure Statement (2 pgs.), Form 1449 (3 pgs.), and copies of 29 cited documents.

Please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

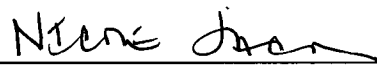
Customer Number 21186

By: 

Atty: Timothy B. Clise

Reg. No. 40,957

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29 day of June, 2007.


Name


Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

S/N 10/578,659PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|-------------|---|-----------------|-------------|
| Applicant: | Euan Christopher Smith et al. | Examiner: | Unknown |
| Serial No.: | 10/578,659 | Group Art Unit: | Unknown |
| Filed: | May 09, 2006 | Docket: | 1365.105US1 |
| Title: | DIGITAL SIGNAL PROCESSING METHODS AND APPARATUS | | |

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No :10/578,659

Filing Date: May 09, 2006

Title: DIGITAL SIGNAL PROCESSING METHODS AND APPARATUS

Page 2

Dkt: 1365.105US1

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications, and Non-Published Applications identifiable by USPTO Serial Number, are no longer required to be provided to the Office. Notification of this change to this effect was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004 and October 19, 2004. Thus, Applicant has not included copies of any US Patents or US Patent Applications identifiable by serial number that may be cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,
EUAN CHRISTOPHER SMITH ET AL.

By their Representatives,
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 349-9587

Date

29 June '07

By



Timothy B. Clise

Reg. No. 40,957

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 29 day of June 2007.

Name

NIGS Jara

Signature



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

| | |
|----------------------|-------------|
| Application Number | 10/578,659 |
| Filing Date | May 9, 2006 |
| First Named Inventor | Smith, Euan |
| Group Art Unit | Unknown |
| Examiner Name | Unknown |

Sheet 1 of 3

Attorney Docket No: 1365.105US1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /NHB/

US PATENT DOCUMENTS

| Examiner Initial * | USP Document Number | Publication Date | Name of Patentee or Applicant of cited Document | Filing Date If Appropriate |
|--------------------|---------------------|------------------|---|----------------------------|
| | US-2002/0024513A1 | 02/28/2002 | Kota, Atsushi, et al. | 08/28/2001 |
| | US-2002/0063671A1 | 05/30/2002 | Knapp, Alan G. | 11/08/2001 |
| | US-2002/0083655A1 | 07/04/2002 | Paul, William, et al. | 03/22/2001 |
| | US-2002/0158832A1 | 10/31/2002 | Park, Tae-Kwang, et al. | 02/25/2002 |
| | US-2003/0018604A1 | 01/23/2003 | Franz, Martin, et al. | 05/22/2001 |
| | US-2003/0193463A1 | 10/16/2003 | Yamada, Fumiaki, et al. | 05/06/2003 |
| | US-2004/0125046A1 | 07/01/2004 | Yamazaki, Tatsuro, et al. | 10/08/2003 |
| | US-2004/0150608A1 | 08/05/2004 | Kim, Bong-Nam, et al. | 12/17/2003 |
| | US-2004/0169463A1 | 09/02/2004 | Burn, Paul L., et al. | 01/20/2004 |
| | US-2004/0249615A1 | 12/09/2004 | Grzeszczuk, Radek, et al. | 12/21/2001 |
| | US-2005/0218791A1 | 10/06/2005 | Kawase, Takeo | 06/01/2005 |
| | US-2006/0001613A1 | 01/05/2006 | Routley, Paul R., et al. | 07/05/2005 |
| | US-2006/0050032A1 | 03/09/2006 | Gunner, Alec G., et al. | 05/23/2005 |
| | US-2007/0069992A1 | 03/29/2007 | Smith, E. C., et al. | 09/29/2005 |
| | US-2007/0085779A1 | 04/19/2007 | Smith, E. C., et al. | 09/29/2005 |
| | US-3,621,321 | 11/16/1971 | Williams, Digby F., et al. | 10/28/1969 |
| | US-4,539,507 | 09/03/1985 | VanSlyke, Steven A., et al. | 03/25/1983 |
| | US-4,672,265 | 06/09/1987 | Eguchi, Ken, et al. | 07/28/1985 |
| | US-5,247,190 | 09/01/1993 | Friend, Richard H., et al. | 12/28/1990 |
| | US-5,646,652 | 07/08/1997 | Saidi, Ali | 04/01/1996 |
| | US-5,654,734 | 08/05/1997 | Orlen, Noah P., et al. | 05/26/1995 |
| | US-5,684,502 | 11/04/1997 | Fukui, Yasuhito, et al. | 12/28/1995 |
| | US-5,747,182 | 05/05/1998 | Friend, Richard H., et al. | 04/03/1995 |
| | US-5,807,627 | 09/15/1998 | Friend, Richard H., et al. | 03/31/1995 |
| | US-5,821,690 | 10/13/1998 | Martens, Josef, et al. | 04/22/1996 |
| | US-5,965,901 | 10/12/1999 | Heeks, Stephen K., et al. | 11/26/1997 |
| | US-6,014,119 | 01/11/2000 | Staring, Aemilianus G., et al. | 05/17/1996 |
| | US-6,151,414 | 11/21/2000 | Lee, Daniel D., et al. | 01/30/1998 |
| | US-6,201,520 | 03/13/2001 | Iketsu, Yuichi, et al. | 09/16/1998 |
| | US-6,332,661 | 12/25/2001 | Yamaguchi, Hiroshi | 03/27/2000 |
| | US-6,429,601 | 08/06/2002 | Friend, Richard H., et al. | 08/17/2000 |
| | US-6,496,168 | 12/17/2002 | Tomida, Takayuki | 10/02/2000 |
| | US-6,558,219 | 05/06/2003 | Burroughes, Jeremy H., et al. | 09/06/2000 |
| | US-6,558,818 | 05/06/2003 | Samuel, Ifor D., et al. | 10/23/1998 |
| | US-6,605,823 | 08/12/2003 | Pichler, Karl, et al. | 07/29/1997 |
| | US-6,897,473 | 05/24/2005 | Burroughes, Jeremy H., et al. | 01/03/2002 |
| | US-7,049,010 | 05/23/2006 | Holmes, Andrew B., et al. | 10/21/1998 |
| | US-7,078,251 | 07/18/2006 | Burroughes, Jeremy, et al. | 10/10/2003 |
| | US-7,125,952 | 10/24/2006 | O'Dell, Richard, et al. | 10/14/2003 |
| | US-7,151,341 | 12/19/2006 | Pichler, Karl, et al. | 07/10/2003 |

EXAMINER

/Nathan Brown Jr/

DATE CONSIDERED

11/04/2009

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

| | |
|----------------------|-------------|
| Application Number | 10/578,659 |
| Filing Date | May 9, 2006 |
| First Named Inventor | Smith, Euan |
| Group Art Unit | Unknown |
| Examiner Name | Unknown |

Sheet 2 of 3

Attorney Docket No: 1365.105US1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /NHB/

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Foreign Document No | Publication Date | Name of Patentee or Applicant of cited Document | T ² |
|--------------------|---------------------|------------------|---|----------------|
| | EP-0541295A2 | 05/12/1993 | Tanioka, Hiroshi | |
| | EP-0581255A1 | 02/02/1994 | Kuwata, Takeshi, et al. | |
| | EP-0621578A | 10/26/1994 | Fukui, Yasuhito, et al. | |
| | EP-0678844A1 | 10/25/1995 | Fukui, Yasuhito, et al. | |
| | EP-1079361A1 | 02/28/2001 | Tokunaga, Masahiro, et al. | |
| | EP-1091339A2 | 04/11/2001 | Tomida, Takayuki | |
| | EP-1408479A2 | 04/14/2004 | Yamazaki, Tatsuro, et al. | |
| | GB-2371910A | 08/07/2002 | Kawase, Takeo | |
| | GB-2381643A | 05/07/2003 | Smith, Euan C., et al. | |
| | GB-2388236A1 | 11/05/2003 | Smith, Euan C., et al. | |
| | GB-2389952A1 | 12/24/2003 | Routley, Paul R., et al. | |
| | WO-02067343A1 | 08/29/2002 | Burn, Paul, et al. | |
| | WO-03079322A1 | 09/25/2003 | Smith, Euan C., et al. | |
| | WO-03091983A1 | 11/06/2003 | Smith, Euan C., et al. | |
| | WO-2004001707A2 | 12/31/2003 | Trags, Alexander | |
| | WO-2004003877A2 | 01/08/2004 | Hattori, Reiji | |
| | WO-2006035246A1 | 04/06/2006 | Smith, Euan C., et al. | |
| | WO-2006035248A1 | 04/06/2006 | Smith, Euan C., et al. | |
| | WO-9013148A1 | 11/01/1990 | Friend, Richard H., et al. | |
| | WO-9506400A1 | 03/02/1995 | Martens, Josef, et al. | |
| | WO-9921935A1 | 05/06/1999 | Samuel, I., et al. | |
| | WO-9948160A1 | 09/23/1999 | Burroughes, Jeremy, et al. | |

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /NHB/

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|--------------------|----------------------|---|----------------|
| | | "United Kingdom Search Report for Application No. GB0524337.3", 1 Page | |
| | | LEE, DANIEL D., et al., "Algorithms for Non-negative Matrix Factorization", <u>Advances in Neural Information Processing Systems</u> , Vol. 13, (2001), 556-562 | |
| | | LEE, DANIEL D., et al., "Learning the parts of objects by non-negative matrix factorization", <u>NATURE</u> , Vol. 401, (October 1991), 788-791 | |
| | | LUI, WENGUO, et al., "Existing and new algorithms for non-negative matrix factorization", http://www.cs.utexas.edu/users/liuwq/383Cproject/CS_383C_Project.htm , (2002) | |
| | | SHAHNAZ, FARIAL, et al., "Document clustering using nonnegative matrix factorization", <u>Information Processing and Management</u> , (2004), 14 Pages | |
| | | TANGSRIRAT, W., et al., "FTFN with variable current gain", <u>Proceedings of IEEE Region 10 International Conference on Electrical and Electronic Technology</u> , 2001. TENCON., Vol. 1, (2001), 209-212 | |

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /NHB/

EXAMINER

/Nathan Brown Jr/

DATE CONSIDERED

11/04/2009

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

| | |
|-----------------------------|-------------|
| Application Number | 10/578,659 |
| Filing Date | May 9, 2006 |
| First Named Inventor | Smith, Euan |
| Group Art Unit | Unknown |
| Examiner Name | Unknown |

Sheet 3 of 3

Attorney Docket No: 1365.105US1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /NHB/

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|-----------------------|--------------------------|---|----------------|
| | | VOGT, FRANK, et al., "Recent advancements in chemometrics for smart sensors", Analyst, Vol. 129, (2004), 492-502 | |

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /NHB/

EXAMINER

/Nathan Brown Jr/

DATE CONSIDERED

11/04/2009

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached